Ethernet Extension Experts

Enable-IT 860C Pro
Professional Grade Ethernet Extender Kit
Quickstart Guide

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INSTALLING THE 860C PRO ETHERNET EXTENDER

The Enable-IT 860C Pro – Professional Grade Extended Ethernet Kit has a distance capability of up to 6,000ft or 1,828m over RG58/RG6 coaxial cable or 1-pair copper wiring (Category 2 up to Category 5e, 6 or 7) from CO device to CPE device.

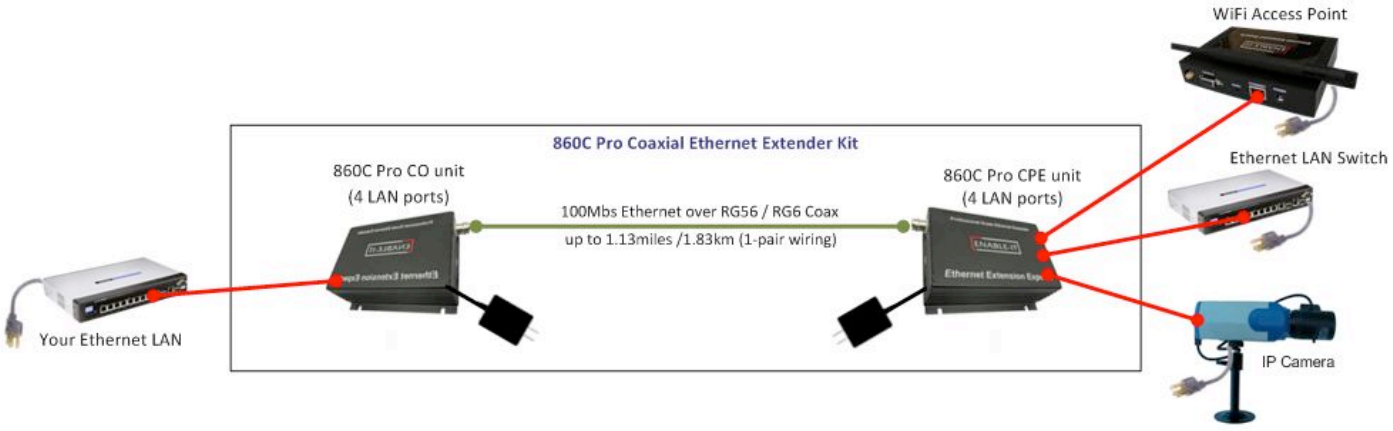
- Total distance capability of up to 6,000ft or 1,829m from end to end.
- RG58/RG6 coaxial cable: 50ohm, RG58A / U, RG58C / U 75ohm, RG-6 between each 860C Pro series LRE.
- 1 Pair CAT-2 wiring minimum or up to 4-pair CAT 5e .30 Gage can be used.

For the Interlink wiring you can use either RJ-45 or BNC Coaxial Wiring. Crimp a RJ-45 Male Head to each end of the contiguous wire run and using the following pins (1 & 2) straight through. This will deliver 1 Voice line, Ethernet Data. If you desire to use the second voice line, you can also use pins (3 & 6) on each end straight through.

The 860C Interlink port (RJ-45 interface) carries this 1-pair signaling over the RJ-45 pins (1 & 2) - used for transport for both voice and data. If you use more than 1-pair of wiring such as a CAT5 segment, the RJ-45 pins (3 & 6) are used for Voice line 2 and the remaining pins 4,5,7 & 8 are can transport native PoE or are unused.

Always Perform an Out of The Box Test

We highly recommend a quick test to ensure the working order of your 860C Pro units. To do this, please use a coaxial cable and attach to the 860C Pro Interlink port of each 860C Pro unit. Power up both 860C Pro units using the provided 5v DC adapter. The Green Sync LEDs will start flickering slowly and then fast as the units talk to each other. After a few seconds you should see a solid Green Interlink Sync LED on each unit to confirm a link is established. This confirms basic proper operation of the units. Next for a more detailed test and to confirm your LAN Equipment works with the 860C Pro, connect your Ethernet LAN and remote device to the 860C Pro LAN ports and test connectivity. The Green Interlink Sync LED will pulse rapidly as it detects traffic.


WiFi Access Point
860C Pro Coaxial Ethernet Extender Kit
860C Pro CO unit
(4 LAN ports)
100Mbs Ethernet over RG56 / RG6 Coax
up to 1.13miles /1.83km (1-pair wiring)
860C Pro CPE unit
(4 LAN ports)
Ethernet LAN Switch
Your Ethernet LAN
IP Camera

Ethernet Extension Experts

LED indicators will provide visual operational status of the 860C Pro units and LAN ports.

Sync - Slow to fast flicker on power up – indicates negotiation of a link.
Solid Green LED indicates link established and rapid pulse is traffic.
Pwr - Solid Green LED indicates that both units are receiving 5v power.
Mode - Solid Yellow LED on CPE unit only – No LED lit on CO
ACT - Yellow LEDs – Lit solid indicates the presence of local LAN
– Blinking indicates the presence of local LAN traffic

For troubleshooting, first examine the backbone wiring pair and make sure you have solid connections. The Interlink Sync LED will be lit solid Green with rapid pulsing on each 860C Pro unit to show proper connection and pairing. If the Interlink Sync LED Link is flashing slow to fast and never goes solid... Then follow the steps below:

1) Make sure your wiring is straight through and not connected to any Telco punch down block; If so remove from the block and use Telco butt clips to bridge wire.

2) Check for a firm connection of the RJ-45 connections or BNC connections in each 860C Pro unit, and power is applied to the 860C Pro CO & CPE units.

3) You can easily isolate any issue by performing an out of the box test confirm either the 860C Pro Kit or your wiring. It is possible an outside interference has been introduced into your wiring.

Performance Settings

If you are experiencing performance issues with your Ethernet connection you may use the following Dip switch settings to adjust your application. For Dip switch 2-4 you must toggle both symmetrically, in other words the CO and CPE must match. If you turn 3 up on the CO you must do so for the CPE and vice-versa.

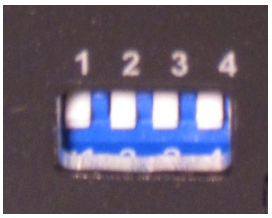
- Dip Switch 1: Toggles the 860C Pro for either CO or CPE mode. (CO mode Up, CPE mode Down)

- Dip Switch 2: This toggles your 860C Pro for either Interleave or Fast mode – Default setting is set to Fast which is preferred for streaming multimedia, where an occasional dropped bit is acceptable, but lags are less so. Interleave channel works better for file transfers, where the delivered data must be error free but latency incurred by the retransmission of errored packets is acceptable.

- Dip Switch 3: This toggles symmetrical/asymmetrical mode for dsl transmissions. Symmetrical balances out the download/upload speed for transmitting data packets.

  Asymmetrical mode weighs in favor of download speed while sacrificing upload speed bandwidth. We suggest flipping Dip switch 3 Up (OFF) at a distance of 1,500 feet or less.

- Dip Switch 4: This toggles the Signal Noise Ratio (SNR). Default is set to 9dB which is excellent for long distance communications whereas flipping the switch Up (OFF) toggles 6dB mode. If you experience issues of noise bleeding over the lines or high interference in your environment it is suggested that you switch to 6dB mode and change to interleave mode. This will help clean up any noise bleeding over your cabling.



Default DIP settings
860C Pro CPE – All down set in the ON position
860C Pro CO – DIP position 1 up (OFF)
DIPs 2-4 down (ON)

Technical Support

Enable-IT OEM Technical Support is available directly to customers and distributors. All support requests are processed through the online support portal. This allows us to provide assigned support ticket numbers in order to bring closure to any technical issues.

Online Technical Services
The Enable-IT Support Portal is available 24/7. No password or user account is necessary. Please use this support website as your first source for help as it contains an on line knowledge base of articles, documentation, FAQ's and other problem-solving resources. This web-based support resource provides the quickest solution to the most common technical support issues.
http://support.enableit.com

Returning Products for Warranty Repair

Enable-IT, Inc. warrants to the original purchaser of the Product ("you" or the "End User") that, for the four (4) year period commencing on the date the Product was purchased (the "Warranty Period"), the Product will be substantially free from defects in materials and workmanship under normal use and conditions. **Electrical damage is not an item that is covered under this warranty or extended warranties.**

If authorized by Enable-IT to return a Product which does not conform to the warranty set forth above, the End User must: (1) obtain a return materials authorization (RMA) number from Enable-IT by contacting the Customer Service Dept. at 888-309-0910 between the hours of 8:00 a.m. and 5:00 p.m. PST and otherwise fully comply with Enable-IT's then-current RMA policy; (2) return the Product to Enable-IT, Inc. in its original packaging freight pre-paid; and (3) provide to Enable-IT the original receipt or bill of sale establishing the date on which the Product was purchased.

Please ship Authorized RMAs to:

Enable-IT Processing Facility
16600 Harbor Blvd, Ste I
Fountain Valley, CA 92708

Returning Products for Refund

45-Day refund applies to single kit Ethernet Extenders only and is subject to a 15% Restocking Fee. Shipments without valid / authorized RMA number or sent to our corporate Las Vegas Address can be refused and or billed for additional shipping.

ENABLE-IT LIMITED WARRANTY

Enable-IT warrants the Enable-IT 860C Pro Extended Ethernet Kits solely pursuant to the following terms and conditions.

1. PRODUCT WARRANTY

a. Express Warranty Enable-IT warrants to the original purchaser of the Product ("you" or the "End User") that, for the four (4) year period commencing on the date the Product was purchased (the "Warranty Period"), the Product will be substantially free from defects in materials and workmanship under normal use and conditions. This warranty does not apply to Products which are resold as used, repaired or reconditioned or consumables (such as batteries) supplied with the Product. **Electrical damage is not an item that is covered under this warranty or extended warranties.** Enable-IT does not make any warranty with respect to any third party product, software or accessory supplied with or used in connection with the Product and such third party products, software and accessories, if any, are provided "AS IS." Warranty claims related to such third party products, software and accessories must be made to the applicable third party manufacturer.

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